Association, succinctly states his belief that "anaphylactic and anaphylactoid phenomena—collectively, the allergic phenomena—appear to rest on a common basis, namely, on disturbances in the physical and chemical (colloidal) mechanism of the blood and tissues. The study of allergic phenomena teaches that almost any agent may be the cause of a reaction."

The general practitioner can easily make himself more efficient in dermatology. Many are well equipped, but often lack the time to use the apparatus they possess. In many instances they neglect to get intimate histories, to do differential blood counts or the most ordinary laboratory routine. Stokes repeatedly points out that many cases of syphilis are not diagnosed because routine Wassermanns are not done. The provocative Wassermann and the blood sugar tolerance tests are not sufficiently used these days.

Spontaneous gangrene is hardly a disease sui generis and is most often due to hysterical mutilations. Dermatitis factitia is occasionally seen in those determined to gain entrance to the free wards of our hospitals. Malingerers during the late war feigned eruptions occasionally. Gas gangrene differs from this case in that it runs a septic temperature, and the bacillus is demonstrable.

F. H. STIBBENS, M. D. (146 Lake Street, Oakland).—The one great point brought out by the author is that too often a general practitioner who is doing general work fails to recognize his limitations, and persists in treating skin cases in which his diagnosis is extremely hazy.

The general practitioner seldom sees more than one or two dozen cases of skin disease in any one year, and many do not see that number. Hence he has nothing to fall back upon but the hazy recollection of what he learned in college many years ago, or he must take down his "Atlas of Skin Diseases" and compare his case with the pictures and endeavor to make his diagnosis from them.

All dermatologists have had a course of instruction in obstetrics, but how many of us feel that we are competent to handle a transverse presentation or do a cesarean section and still preserve the best interests of the patient?

The man who practices in the country must perforce handle to the best of his ability all cases that come his way, but even he, in many instances, can refer a case to a competent dermatologist.

Like Chipman, I cannot see the necessity of "a complete physical examination of every case." Several forms of skin disease are so self-evident to the trained observer that no material benefit to either the patient or the observer would accrue from such an examination. The same applies to laboratory work. Of what benefit would a complete blood count, Wassermann, urinalysis, and basal metabolism be in a case of scabies or ringworm?

Complete physical examination and laboratory work or reports have their value and should be used and considered thoroughly in all doubtful cases, but the clinical findings and symptoms should have first place.

Doctor Lounsberry (closing).—I am happy to note that my paper has brought out the physical examination feature in discussion. My main object in bringing out that point was to encourage more of us in routine examination of our patients. This is especially true of the dermal system. Obviously, a complete examination of a mole or a dandruff case can be dispensed with. Nevertheless complete histories and physical examinations should be striven for, since through these more logical conclusions in diagnosis of difficult cases may be reached.

In answer to Doctor Lindsay's question I suggest that he look up in Garrison's history of medicine the subject of "Skin Diseases," pages 349, 350, 368, 581, 582. The early men of note in England were Erasmus Wilson, Tilbury Fox, Jonathan Hutchinson, James Paget and Covafy. To these add the continental group, Koposi, Hebra, Sabouraud, Unna, and Finsen.

## INDUSTRIAL CORNEAL INJURIES\*

By RAYMOND J. NUTTING, M. D. Oakland

THIS report of different types of corneal injuries is based on fourteen hundred consecutive cases. The importance of proper diagnosis and treatment in these cases in regard to disability and from the standpoint of the employee and employer will be discussed.

The subject of corneal injuries incurred by men in our various industrial pursuits could be treated with elaborate detail. The writer will confine his task to that of a discussion of his own professional observations and experiences with corneal injuries occurring in industrial activities.

Of a total of 1400 consecutive industrial corneal injury cases observed and treated by the writer in his private practice, 1382 of the injuries were of the nonpenetrating type, while eighteen were of the penetrating.

A meager history of this latter group will be given. There were six cases of severe lacerations; eleven cases caused by intra-ocular foreign bodies, and one case due to California thistle. It was necessary to enucleate in four of the above patients. Two of the eyes were removed immediately after examination, as they were beyond medical or surgical relief. The other two were removed later because of the danger of sympathetic ophthalmia affecting the good eye. In five of the patients good protective vision was obtained after the removal of the traumatic cataract; while in the remaining nine cases the patient was discharged without disability.

In examining the records of the 1382 nonpenetrating corneal cases, it was naturally found that they possessed various and interesting histories. Iron and rust scales in various forms were responsible for 64 per cent of the cases; abrasions accounted for 17 per cent; burns 6.6 per cent; lime 3 per cent; lacerations 1.8 per cent; concrete 1.7 per cent; sand and rock 1.3 per cent; wood 1.2 per cent; glass 1 per cent; acid .8 per cent; cinders .4 per cent; sulphur .3 per cent. Powder and likewise bone each accounted for one case. The above percentages when considered in respect one to the other appear quite normal. We are living in an age of iron and steel, and men in our industries are constantly coming into contact with the materials.

As regards the corneal position of the various injuries, it was found that 1111 were outside the pupillary area, and 271 within.

The above data although interesting are not so vital either to the patient or to the employer, nor, incidentally, to the physician, as the matter of treatment. Here we may consider the length of treatment given the various patients.

In arriving at the length of treatment, the patients were divided into direct and indirect groups, meaning by indirect the referred cases. The average length of treatment given the injured in direct cases was 1.53 days; while the time consumed in

<sup>\*</sup> Read before the Industrial Medicine and Surgery Section of the California Medical Association at its Fifty-Seventh Annual Session, April 30 to May 3, 1928.

the indirect cases was 3.89 days. There were 648 direct and 723 indirect cases. Eleven severe indirect cases requiring from one month to a year's treatment were not considered. The usual first-aid treatment in the indirect cases was not taken into consideration in arriving at these conclusions.

The diagnosis and kind of treatment of these industrial cases is important. It is vital that a true and accurate history of the injury be obtained; and this having been obtained, the examination of the injury itself can be taken up. To do this it is imperative that we have a light of the proper intensity and a suitable magnifying lens, otherwise small yet disturbing foreign bodies will not be discovered. Likewise minute abrasions, lacerations, and various small penetrating wounds, which if not recognized and treated at an early stage, might later not only cause disability but even loss of the eye itself. In this connection, it is recommended that a concentrated alkaline solution of fluorescein (Gruebler's fluorescein 2 per cent; carbonate of soda 3.5 per cent) be dropped on the cornea. That portion of the cornea deprived of its epithelium will be colored green, likewise any portion of the epithelium that may be diseased, while the healthy epithelium will remain unaffected.

If there is any doubt of the existence of a foreign body within the eye, a careful x-ray examination is in order.

The technique for removing the foreign body from the eye must be given careful consideration. First, the cornea is thoroughly anesthetized (writer uses butyn 2 per cent, or holocain). Then the foreign body itself is completely removed as well as its stain, with a suitable small spud or curet, paying at all times proper respect to the normal and healthy epithelium. Usually the general man is quite proficient in removing the foreign body, but is rather remiss in removing the stain itself, which is the underlying cause for the increased length of treatment referred to herein above. It is urged that great care be given to proper sterilization of all instruments.

After the removal of the foreign body and of any stain present, the eye is thoroughly cleansed with either saturated boric acid water or normal salt solution. Some antiseptic solution is then instilled (the writer uses 1 per cent mercurochrome) and in the event the curettement has caused considerable loss of epithelium, a 1 per cent holocain and adrenalin ointment is instilled, followed with a proper pad. The use of a good pad is considered by the writer as the most necessary and important treatment afforded the patient after the removal of the foreign body. In all forms of corneal injury, with few exceptions, it is essential that a pad be used. Too often the pad is not used, thereby again affecting the length of time of treatment.

Lime burns are very often neglected, and especially so by the patient. After flushing out the eye, or eyes, with water, such patients should then consult a physician. Unless the doctor completely removes all of the lime much damage, trouble and very lengthy treatment results. The lids should be everted and all particles carefully removed. After more washing the eye is then

treated with neutral ammonium tartrate 5 per cent, as advocated by Barkan of San Francisco.¹ The results that are obtained by this method are surprising. Since using it the writer has not had one case of disability, whereas prior thereto he had some very severe cases which when first seen gave indications of considerable permanent disability.

With reference to burns, especially of the acid or alkali type, thorough washings with salt solution should be made, followed by castor oil instillation and pad. Any additional treatment is necessarily dependent upon the severity of the case.

From the standpoint of prevention, a greater use of goggles is suggested. The employer should also placard his shops with signs cautioning employees not to try to remove objects from the injured eyes of fellow workmen. In nearly every instance this act, although motivated by a kindly and sympathetic feeling, results in infection, thereby greatly lengthening the treatment. In this connection I close by quoting E. C. Ellett, M. D., of Memphis: 2 "It is much wiser to adopt precautions although somewhat troublesome than to receive an accident which may impair one's sight, and cause, not only pain, suffering, loss of time and expense, but permanent disability, unhappiness, and decrease of earning power."

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2. Ellett, E. C.: Conservation of Vision Series, Pamphlet xiii, p. 6.

## THE LURE OF MEDICAL HISTORY

THE FIRST MEDICAL PUBLICATION IN THE UNITED STATES

By FRANK H. RODIN, M. D. San Francisco

HE first printing press in America was established at Cambridge, Massachusetts, in 1639, and was under the control of Harvard College. The first publications were the "Freeman's Oath" and "An Almanack," which appeared in the same year. In the following year the first book published in the Colonies appeared: "The Psalms in Metre, Faithfully translated for the Use, Edification, and Comfort of the Saints in publick and private, especially in New England," commonly called "The Bay Psalm Book." The printing of books was regarded with suspicion by the authorities, as it seemed "to open the door of heresy," and in 1662 two "Licensers of the Press" were appointed. Strict supervision was maintained over everything that was printed. In this respect they did not differ greatly from us of a more modern age. The majority of the books published were expositions of Puritanical theology. Two years later a law was passed prohibiting the establishment of any printing press in the colony of Massachusetts, except at Cambridge. In 1674, however, this law was suspended and the general court, at the session in May of that year, passed the following order: "Whereas there is now granted that